Low-Maintenance Landscaping Competition

Louisville Metro Air Pollution Control District

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Sheldon and Kim Karnes

The history of the property

For the purposes of this contest, we are considering the area that is 20.25 feet away from the street and back 153 feet from there, eliminating the back 31.5 feet of the property. I am also not including the area of the house and driveway in the 12,000 square feet. Here's the math: $20604'^2$ - $2583'^2$ (house) - $2065.5'^2$ (front section) – $3213'^2$ (back section) – $1215'^2$ (driveway) = $11528'^2$

This house was built in 1976, about the same time as the rest of the Maplehurst neighborhood. We have lived on this property since August 2000. When we purchased the property, there were flower beds on all sides of the house about 3'-4' deep and a small vegetable garden in the back. The plants that they had in the beds were nearly all inappropriately sited. (A lilac along the northwest wall under a maple tree, for example.) We had to move all of them to better locations or simply remove them because they were too big to move. The beds along the front of the house were full of plastic and pea gravel that were no longer keeping out the weeds. We had to completely replace the soil in those beds with topsoil we purchased. There were creeping junipers and square-pruned Taxus shrubs in the front that we promptly removed. See the section ***Trees*** below for more detail on the existing trees.

The soil and topographical properties of the lot

The .43 acre lot is level and faces northeast. The soil is clay, but fertile and fairly well-drained. The Ph of the soil is 6.5 at each point tested.

We really have done very little to augment the soil. I have focused more of my energies in choosing plants that thrive in clay soil. When Sheldon tilled up the large back corner bed, he tilled in a ten inch layer of grass and leaves, but you can't even tell it now. I do keep a compost pile where I throw everything that isn't seedy or diseased, but it can't nearly keep up with my need for compost! A Superior Compost Company just opened twelve miles away, so we now have access to bulk compost and mulch at a reasonable price. We have begun keeping a pile of compost on hand and I dig a good amount of it into the soil whenever I plant. But for the most part, the plants thrive in the native soil here. If they don't, they are just added to the "plants that don't grow well here" list and I try something else.

The trees

The trees in the back yard were all here when we purchased the property, but they are not what I would have chosen. The tree listed on the diagram as a butternut, is actually a black walnut. I have been successful in locating a good number of juglone-tolerant plants that thrive under it, but I do not recommend planting a black walnut where you want a shade garden! The tree listed on the diagram as a red maple is actually a silver maple with shallow roots and millions of seeds each spring. I strongly urge homeowners to plant red maples instead! The pine tree also causes us many problems. The needles clog up the gutters year-round, it drops sticky sap on everything underneath it, and its dense shade is tolerated by only the most robust shade plants. I would recommend going with the alternative choice I listed, the tulip poplar. It is also a shapely, tall shade tree with far fewer drawbacks. The eastern hemlocks all along the northwest property line in the back are large spruce trees. The spruce trees really want soil that's far more acidic than we have. I go under them and sprinkle sulfur on the soil each year to make it more acidic for them. It would have been much wiser to plant native hemlocks that are suited to this soil. The white ash tree by the garage on the diagram is actually another silver maple. Since this landscape plan will be made available to other gardeners, I wanted to recommend much better selections than what I've had to garden around. Of all the woody plants on the landscape diagram, the only one I actually intend to plant is the arborvitae.

The project

We have enlarged most of the beds from the size they were when we purchased the property. Sheldon tilled up the back corner in the fall of 2001, tilling in a ten inch layer of leaves and grass. Each year, we've expanded another bed. In the future, the island bed in the middle of the back yard will expand and should cover most of the rest of the grass. We also plan to put in a pond at some point. Nearly all the landscape represented on the drawing is complete with the exception of the dry streambed. That is the next project we plan to do.

A good portion of the current collection of plants were acquired through trading with other gardeners. (Hence, a lot of them are easily propagated by seed or division!) I have attended local plant swaps and arranged trades on the seed and plant exchange forums at www.gardenweb.com. Sometimes seeds were mislabeled and I got a surprise when they began to grow, but it was a lot of fun getting plants and seeds for just the cost of postage and a little time on my part. That was the only way I was able to afford to fill so many square feet of gardens so quickly.

I have developed the current landscape with planning and then much trial and error. I would lay it all out on graph paper taking height, color, shape, bloom time, and light requirements into consideration, and then half the seeds wouldn't sprout and others sprouted way more than I expected and I would find plants on sale. So I would end up plopping plants down in any available hole and moving them later as I evaluated what would go together better. Many plants were planted in the southwest, southeast, and northwest beds and then removed when they failed to thrive. All upright plants in the southeast bed flopped over, so now it is Sempervivums and lavenders and vines on a trellis. Plants in the southwest bed roasted and shriveled until I found the current selection of beautyberries, daylilies, lavender, and artemisia that actually thrive there. The plants in the northwest bed sat there looking miserable and refused to grow until I discovered the hostas and ferns that flourish there. I have planted some flowers that were lovely, but began taking over their neighbors, so they were either potted up or completely eradicated. Nor have I tolerated plants that flop or get unattractive foliage. The current selection of plants represented in this landscape plan are the ones that have been reliable, good performers for me (plus a few natives that have gotten good reviews from other gardeners.) I have made notes about some specific plants on the Excel spreadsheet included on the CD-ROM.

The plants

Every plant is hardy here in zone 6 except the cardoon and the Japanese Aucuba. I put umbrella greenhouses over the cardoon in the winter and so far the Aucuba has made it without special protection. The zone appropriateness for each plant is listed in the comprehensive list of plants included in the narrative.

Whenever I select plants, I consider not only the color and shape and size, but I want plants that also have value for wildlife. The anise hyssop is a pretty average-looking plant, but I keep it because it attracts so many pollinators. The hummingbirds love the bee balm. The wild ginger, while it is a cute groundcover for shade, is also the larval food for the pipevine swallowtail. The birds love the elderberries, crabapples, and the coneflower seeds.

Maintenance

Spring: 3 hours/week + mulching
Summer and Fall: 2 hours/week

Most of the shrubs naturally grow in an attractive shape. None of them require routine pruning. The dogwood shrubs, blue mist shrubs, and elderberries just need to be cut back in the early spring to maintain desired size and the ornamental grasses and liriope need to be sheared back then too. The hibiscus and butterfly bush and all herbaceous perennials need to be cut back to the ground each winter unless they are noted as evergreen.

Spring is the most labor intensive as I prune back dead plant material, pull weeds, lay down mulch, and plant new flowers. I put in at least 3 hours a week, not counting mulching. Mulching is a **lot** of work—just block out 2 weeks on the calendar and plan to spend each evening spreading mulch. It's more than worth it though, because if you put down a good layer now, there will hardly be any weeds for the rest of the year and watering needs will be greatly reduced. Sweet alyssum is an alternative to mulch. It's a wonderful little annual that self-seeds and covers all the bare dirt, effectively preventing weeds as well. It is never invasive, and reportedly prevents cutworms from getting to plants they surround! However, it needs to be kept fairly moist. So places where you let alyssum grow instead of mulching will require more water.

Summer and fall require much less yard-work. Two hours a week should be sufficient during the summer and fall, to mow, hoe up weed seedlings, deadhead flowers, and address insect and disease problems. I purchase disease-resistant cultivars whenever possible to minimize their after-care. I have found that hoeing works better at removing seedlings than Round-up and there's no danger of overspray.

The miniature roses require very little extra care. They do not need regular pruning or spraying because they have been bred to be disease resistant and bushy.

Water consumption

With all the plants well established and with 6" of mulch around them, I would need less than 300 gallons of water in a period of 21 days without rain. If all areas are well-mulched, you'll be surprised at how well the clay soil stays moist. It takes 10 days without rain before the soil under the mulch feels dry. Even then, the natives (blue indigo, ironweed, rattlesnake master, elderberries, coreopsis, etc.) don't show any visible signs of stress.

Having plants well-sited is important in minimizing water consumption, as well. Lungworts, hostas, and ferns will require much less water in the shade than if you try to plant them in a sunny area. If I find a plant that continually wilts where it is, I move it to a shadier location. Some plants also benefit from a good soaking of Wilt-Pruf, a spray that helps the plant retain moisture. I must admit to being fairly ruthless with my plants. If they can't handle the conditions, they die and are replaced with something more drought-tolerant. (I do keep the plants under the maples watered because the tree is just too much competition, and recent transplants need extra water until they're established as well.) We also put a perforated pipe on the end of a downspout and buried it in a flower bed that was completely under the eaves. Now it gets rain delivered right to the roots and rarely needs water.

Mowing

We have put mulch under the trees where the roots make the ground uneven and the grass spotty so those areas do not need to be mowed. Between the expanded flowerbeds, mulched areas under trees, and the dry stream bed, the amount of lawn that needs to be mowed has been cut in half. We also do not fertilize or water our grass, so it often can go a little more than a week between mowings! We have the mower set on the highest setting, make it more difficult for weeds to get started; therefore, we are able to have a nice-looking lawn with very few chemicals.

Budget for implementation

The retail value for the plants adds up to $1633.43. Nine cubic yards of mulch or compost at $17.50 a yard is $157.50. This comes out to $1790.93.

This landscape actually cost me much less than $1800 to implement. Many of the plants on the list are available for free from other gardeners, but I went ahead and included the retail price for them on the plants list. I also limited the quantities I recommended for purchase, keeping in mind

how easily these plants are propagated. Sometimes I listed only one or two for purchase, knowing that in three years, they could be four or eight or more. By purchasing the recommended number of plants on the list, a gardener could have the required number of plants to fill out the landscape as drawn within three years or less. That is how I garden. I buy in quantity only if the plants are really marked down.

Sources

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